Trying 3106016892...Open

Welcome to STN International! Enter x:x
LOGINID:ssspta1156cxh
PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

STN Database Search

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS 1		Web Page URLs for STN Seminar Schedule - N. America
NEWS 2	Sep 17	IMSworld Pharmaceutical Company Directory name change to PHARMASEARCH
NEWS 3	Oct 09	Korean abstracts now included in Derwent World Patents Index
NEWS 4	Oct 09	Number of Derwent World Patents Index updates increased
NEWS 5	Oct 15	Calculated properties now in the REGISTRY/ZREGISTRY File
NEWS 6	Oct 22	Over 1 million reactions added to CASREACT
NEWS 7	Oct 22	DGENE GETSIM has been improved
NEWS 8	Oct 29	AAASD no longer available
NEWS 9	Nov 19	New Search Capabilities USPATFULL and USPAT2
NEWS 10	Nov 19	TOXCENTER(SM) - new toxicology file now available on STN
NEWS 11	Nov 29	COPPERLIT now available on STN
NEWS 12	Nov 29	DWPI revisions to NTIS and US Provisional Numbers
NEWS 13	Nov 30	Files VETU and VETB to have open access
NEWS 14	Dec 10	WPINDEX/WPIDS/WPIX New and Revised Manual Codes for 2002
NEWS 15	Dec 10	DGENE BLAST Homology Search
NEWS 16	Dec 17	WELDASEARCH now available on STN
NEWS 17	Dec 17	STANDARDS now available on STN
NEWS 18	Dec 17	New fields for DPCI
NEWS 19	Dec 19	CAS Roles modified
NEWS 20	Dec 19	1907-1946 data and page images added to CA and CAplus

NEWS EXPRESS	August 15 CURRENT WINDOWS VERSION IS V6.0c, CURRENT MACINTOSH VERSION IS V6.0 (ENG) AND V6.0J (JP), AND CURRENT DISCOVER FILE IS DATED 07 AUGUST 2001
NEWS HOURS	STN Operating Hours Plus Help Desk Availability
NEWS INTER	General Internet Information
NEWS LOGIN	Welcome Banner and News Items
NEWS PHONE	Direct Dial and Telecommunication Network Access to STN
NEWS WWW	CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

* * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 16:38:14 ON 24 JAN 2002

=> file ca

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.15	0.15

FILE 'CA' ENTERED AT 16:38:25 ON 24 JAN 2002
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

Leave in file Cited in Search Notes

CYNTHIA HAMILTON
PRIMARY EXAMINER

FILE COVERS 1907 - 17 Jan 2002 VOL 136 ISS 4
FILE LAST UPDATED: 17 Jan 2002 (20020117/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

This file supports REG1stRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

The CA file now provides online access to patents and literature covered in CA from 1907 to the present. Bibliographic information and abstracts were added in 2001 for over 3.8 million records from 1907-1966.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

The CA Lexicon is now available in the Controlled Term (/CT) field. Enter HELP LEXICON for full details.


```
=> s calix? and resocinaren?
          4445 CALIX?
             3 RESOCINAREN?
L1           3 CALIX? AND RESOCINAREN?

=> d all 1-3
```

L1 ANSWER 1 OF 3 CA COPYRIGHT 2002 ACS
AN 131:293201 CA
TI Three-component negative-type photoresist based on C-tetraoctyl-**calix**[4]**resocinarene**, a cross-linker, and a photo-acid generator
AU Takeshi, Kazumasa; Takahashi, Daisuke; Nakayama, Tomonari; Ueda, Mitsuru
CS Department of Human Sensing and Functional Sensor Engineering Graduate School of Engineering, Yamagata University, Yamagata, 992-8510, Japan
SO Polym. Mater. Sci. Eng. (1999), 81, 85-86
CODEN: PMSEDG; ISSN: 0743-0515
PB American Chemical Society
DT Journal
LA English
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 36, 38, 76
AB We have synthesized four types of **calix**[4]resorcinarenes [C4-RA], "C-tetraheptyl-**calix**[4]resorcinarene [C(7)C4-RA], C-tetraoctyl-**calix**[4]resorcinarene [C(8)C4-RA], C-tetranonyl-**calix**[4]resorcinarene [C(9)C4-RA], and C-tetraundecyl-**calix**[4]resorcinarene [C(11)C4-RA], and evaluated the lithog. performance of the three-component neg. working photoresist consisting of C4-RA, 4,4'-methylenebis[2,6-bis(hydroxymethyl)]phenol (MBHP), and diphenyliodonium 9,10-dimethoxyanthracene-2-sulfonate (DIAS). C(8)C4-RA exhibited a good dissoln. behavior in 2.38 % aq. tetramethylammonium

hydroxide soln., the conventional base developer for photoresist. Therefore, a new neg. working photoresist was formulated by mixing C(8)C4-RA (70 %), MBHP (25 %) as the cross-linker, and the photoacid generator DIAS (10 %), and showed a high sensitivity and a high contrast to i-line by the development with 2.38 % TMAH developer. It was proved that the dissoln. behaviors of **calix**[4]resorcinarenes could be controlled by the modification of the structure.

ST neg working photoresist tetraoctyl **calix** resorcinarene

IT Negative photoresists
Photolithography
Semiconductor device fabrication
(three-component neg.-type photoresist based on C-tetraoctyl-**calix**[4]**resocinarene**, a cross-linker, and a photo-acid generator)

IT 13653-12-8, 4,4'-Methylenebis[2,6-bis(hydroxymethyl)]phenol
RL: TEM (Technical or engineered material use); USES (Uses)
(cross-linker; three-component neg.-type photoresist based on C-tetraoctyl-**calix**[4]**resocinarene**, a cross-linker, and a photo-acid generator)

IT 75-59-2, Tetramethylammonium hydroxide
RL: TEM (Technical or engineered material use); USES (Uses)
(developer; development of three-component neg.-type photoresist based on C-tetraoctyl-**calix**[4]**resocinarene**, a cross-linker, and a photo-acid generator)

IT 137308-86-2
RL: TEM (Technical or engineered material use); USES (Uses)
(photoacid generator; three-component neg.-type photoresist based on C-tetraoctyl-**calix**[4]**resocinarene**, a cross-linker, and a photo-acid generator)

IT 112247-07-1P 120578-24-7P 129779-33-5P 134724-39-3P
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)
(prepn. of C-tetraalkyl-**calix**[4]resorcinarenes for three-component neg.-type photoresist)

IT 108-46-3, Resorcinol, reactions 112-31-2, Decanal 112-54-9, Dodecanal 124-13-0, Octanal 124-19-6, Nonanal
RL: RCT (Reactant)
(prepn. of C-tetraalkyl-**calix**[4]resorcinarenes for three-component neg.-type photoresist)

RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Allen, R; Proc SPIE 1995, V2438, P250 CA
(2) Bohmer, V; Angew Chem Int Ed Engl 1995, V34, P713
(3) Hogberg, A; J Am Chem Soc 1980, V102, P6046
(4) Hogberg, A; J Org Chem 1980, V45, P4498
(5) Lee, S; Macromolecules 1994, V27, P5154 CA
(6) Lee, S; Macromolecules 1994, V27, P5160 CA
(7) Nakayama, T; Bull Chem Soc Jpn 1998, V71, P2979 CA
(8) Omote, T; Polym Eng Sci 1992, V32, P1634 CA
(9) Shaw, J; IBM J Res Develop 1997, V41, P81 CA
(10) Takeda, N; JP 58116433 Jpn Kokai Tokkyo Koho 1983 CA
(11) Tunstad, L; J Org Chem 1989, V54, P1305 CA
(12) Ueda, M; Chemistry of Materials 1998, V10, P2230 CA
(13) Willson, C; Introduction to Microlithography 2nd ed 1994, P139

L1 ANSWER 2 OF 3 CA COPYRIGHT 2002 ACS

AN 131:221141 CA

TI Three-component negative-type photoresist based on C-tetraoctyl-**calix**[4]**resocinarene**, a cross-linker, and a photo-acid generator

AU Nakayama, Tomonari; Takahashi, Daisuke; Takeshi, Kazumasa; Ueda, Mitsuru
CS Departemnt of Human Sensing and Functional Sensor Engineering, Graduate School of Engineering, Yamagata University, Yamagata, 992-8510, Japan

SO J. Photopolym. Sci. Technol. (1999), 12(2), 347-352
CODEN: JSTEEW; ISSN: 0914-9244
PB Technical Association of Photopolymers, Japan

DT Journal
LA English
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
AB **Calix**[4]**resocinarenes**(C4-RAs), "C-tetraheptyl-**calix**[4]resorcinarene [C(7)C4-RA], C-tetraoctyl-**calix**[4]resorcinarene [C(8)C4-RA], C-tetranonyl-**calix**[4]resorcinarene [C(9)C4-RA], and C-tetraundecyl-**calix**[4]resorcinarene [C(11)C4-RA]", were synthesized by the acid-catalyzed condensation of resorcinol and alkylaldehyde. The obtained C4-RAs were well-dissolved in common org. solvents and their films were transparent above 300 nm. Therefore, neg. working photoresists based on C4-RAs, 4,4'-methylenebis[2,6-bis(hydroxymethyl)]phenol (MBHP) as a cross-linker, and a photo-acid generator diphenyliodonium 9,10-dimethoxyanthracene-2-sulfonate (DIAS) has been developed. Particularly, the resist contg. C(8)C4-RA had the dissoln. property well-controlled by a conventional aq. base developer [2.38 wt% aq. tetramethylammonium hydroxide(TMAH) soln.]. Thus, the photoresist consisting of C(8)C4-RA (70 wt%), MBHP (20 wt%), and DIAS (10 wt%) showed a sensitivity of 7 mJ cm-2 and a contrast of 6.1 when it was exposed to 365 nm light and postbaked at 130.degree.C for 3 min, followed by developing with the TMAH developer at room temp.
ST resorcinarene photoresist crosslinker photoacid generator
IT Absorption spectra
Crosslinking agents
Dissolution rate
Lithography
Optical properties
Photoresists
Solubility
(3-component neg.-type photoresist based on C-tetraoctyl-**calix**[4]**resocinarene**, cross-linker, and photo-acid generator)
IT 116780-43-9P 145375-89-9P 212704-26-2P 221013-61-2P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(3-component neg.-type photoresist based on C-tetraoctyl-**calix**[4]**resocinarene**, cross-linker, and photo-acid generator)
IT 112-31-2, Decanal 112-54-9, Dodecanal 120-80-9, 2-Hydroxyphenol, reactions 124-13-0, Octanal 124-19-6, Nonanal
RL: RCT (Reactant)
(3-component neg.-type photoresist based on C-tetraoctyl-**calix**[4]**resocinarene**, cross-linker, and photo-acid generator)
IT 75-59-2, Tetramethylammonium hydroxide
RL: TEM (Technical or engineered material use); USES (Uses)
(3-component neg.-type photoresist based on C-tetraoctyl-**calix**[4]**resocinarene**, cross-linker, and photo-acid generator)
IT 13653-12-8, 4,4'-Methylenebis[2,6-bis(hydroxymethyl)]phenol
RL: PRP (Properties)
(crosslinker; 3-component neg.-type photoresist based on C-tetraoctyl-**calix**[4]**resocinarene**, cross-linker, and photo-acid generator)
IT 137308-86-2, Diphenyliodonium 9,10-dimethoxyanthracene-2-sulfonate
RL: PRP (Properties)
(photoacid generator; 3-component neg.-type photoresist based on C-tetraoctyl-**calix**[4]**resocinarene**, cross-linker, and photo-acid generator)
RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Allen, R; Proc SPIE 1995, V2438, P250 CA
(2) Bohmer, V; Angew Chem Int Ed 1995, V34, P713
(3) Hogberg, A; J Am Chem Soc 1980, V102, P6046
(4) Hogberg, A; J Org Chem 1980, V45, P4498
(5) Lee, S; Macromolecules 1994, V27, P5154 CA
(6) Lee, S; Macromolecules 1994, V27, P5160 CA
(7) Nakayama, T; Bull Chem Soc 1998, V71, P2979 CA
(8) Omote, T; Polym Eng Sci 1992, V32, P1634 CA
(9) Shaw, J; IBM J Res Develop 1997, V41, P81 CA
(10) Takeda, N; JP 58-116433 1983 CA
(11) Tunstad, L; J Org Chem 1989, V54, P1305 CA

(12) Ueda, M; Chemistry of Materials 1998, V10, P2230 CA
(13) Willson, C; Introduction to Microlithography 1994, P139

L1 ANSWER 3 OF 3 CA COPYRIGHT 2002 ACS
AN 127:270392 CA
TI A negative-working alkaline developable photoresist based on **calix**[4]**resocinarenes**, a crosslinker, and a photoacid generator
AU Ueda, Mitsuru; Takahashi, Daisuke; Nakayama, Tomonari; Haba, Osamu
CS Department of Human Sensing anf Functional Sensor Engineering, Graduate School of Engineering, Yamagata University, Yonezawa, 992, Japan
SO Polym. Mater. Sci. Eng. (1997), 77, 455-456
CODEN: PMSEDG; ISSN: 0743-0515
PB American Chemical Society
DT Journal
LA English
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 76
AB The classical diazonaphthoquinone/novolak resist is still the workhorse of the microelectronics industry. We are interested in **calixarenes** for resist materials as the substitute of novolak resin because of monodisperse materials and have developed a neg. working photoresist based on **calix**[4]resorcinarene, 4,4'-methylenebis[2,6-bis(hydroxymethyl)]phenol (MBHP) as cross-linker, and photoacid generator diphenyliodonium 9,10-dimethoxyanthracene-2-sulfonate (DIAS). A clear neg. pattern was obtained when it was exposed to 365 nm UV light and post baked at 130.degree.C, followed by developing with a 0.5% aq. tetramethylammonium hydroxide (TMAH) soln. at room temp. Furthermore, to control the soly. to a TMAH developer, **calix**[4]methylresorcinarene as the matrix resin for the 2.38% TMAH aq. soln. has also been developed.
ST neg alk developable photoresist **calixresocinarene** photolithog
IT Photolithography
Photoresists
(neg.-working alk. developable photoresist based on **calix**[4]**resocinarenes**, crosslinker, and photoacid generator)
IT Metacyclophanes
RL: TEM (Technical or engineered material use); USES (Uses)
(neg.-working alk. developable photoresist based on **calix**[4]**resocinarenes**, crosslinker, and photoacid generator)
IT 13653-12-8, 4,4'-Methylenebis[2,6-bis(hydroxymethyl)]phenol
RL: TEM (Technical or engineered material use); USES (Uses)
(crosslinker; neg.-working alk. developable photoresist based on **calix**[4]**resocinarenes**, crosslinker, and photoacid generator)
IT 75-59-2, Tetramethylammonium hydroxide
RL: TEM (Technical or engineered material use); USES (Uses)
(developer; neg.-working alk. developable photoresist based on **calix**[4]**resocinarenes**, crosslinker, and photoacid generator)
IT 65338-98-9 138233-39-3
RL: TEM (Technical or engineered material use); USES (Uses)
(neg.-working alk. developable photoresist based on **calix**[4]**resocinarenes**, crosslinker, and photoacid generator)
IT 137308-86-2, Diphenyliodonium 9,10-dimethoxyanthracene-2-sulfonate
RL: TEM (Technical or engineered material use); USES (Uses)
(photoacid generator; neg.-working alk. developable photoresist based on **calix**[4]**resocinarenes**, crosslinker, and photoacid generator)

=> FIL REGISTRY

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	11.09	11.24

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE ENTRY TOTAL SESSION
CA SUBSCRIBER PRICE -1.77 -1.77

FILE 'REGISTRY' ENTERED AT 16:39:40 ON 24 JAN 2002
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

STRUCTURE FILE UPDATES: 22 JAN 2002 HIGHEST RN 385763-58-6
DICTIONARY FILE UPDATES: 22 JAN 2002 HIGHEST RN 385763-58-6

TSCA INFORMATION NOW CURRENT THROUGH July 7, 2001

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Calculated physical property data is now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> S 65338-98-9/RN

L2 1 65338-98-9/RN

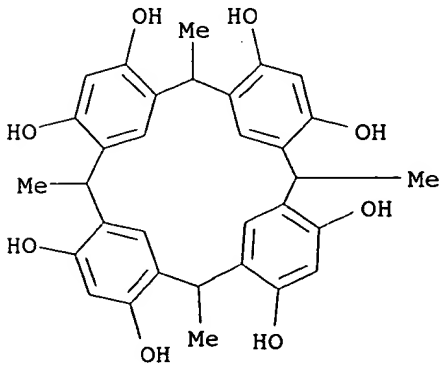
=> SET NOTICE 1 DISPLAY

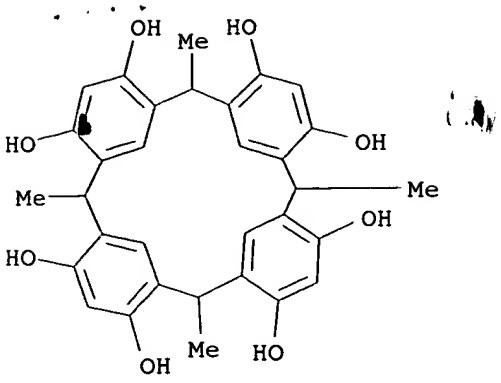
NOTICE SET TO 1 U.S. DOLLAR FOR DISPLAY COMMAND
SET COMMAND COMPLETED

=> D L2 SQIDE 1-

YOU HAVE REQUESTED DATA FROM 1 ANSWERS - CONTINUE? Y/(N):y
THE ESTIMATED COST FOR THIS REQUEST IS 5.53 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:y

L2 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2002 ACS
RN **65338-98-9** REGISTRY
CN Pentacyclo[19.3.1.13,7.19,13.115,19]octacosa-1(25),3,5,7(28),9,11,13(27),15,17,19(26),21,23-dodecaene-4,6,10,12,16,18,22,24-octol, 2,8,14,20-tetramethyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN C-Methylcalix[4]resorcinarene
FS 3D CONCORD
MF C32 H32 O8
CI COM
LC STN Files: BEILSTEIN*, CA, CAPLUS, CASREACT, CHEMCATS, GMELIN*, PIRA, TOXCENTER, TOXLIT, USPATFULL
(*File contains numerically searchable property data)





PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

101 REFERENCES IN FILE CA (1967 TO DATE)
9 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
100 REFERENCES IN FILE CAPLUS (1967 TO DATE)

=> SET NOTICE LOGIN DISPLAY

NOTICE SET TO OFF FOR DISPLAY COMMAND
SET COMMAND COMPLETED

=>

=> FIL STNGUIDE

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	1.90	13.14

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-1.77

FILE 'STNGUIDE' ENTERED AT 16:40:32 ON 24 JAN 2002
USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Jan 18, 2002 (20020118/UP).

=> log y

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.00	13.14

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-1.77

STN INTERNATIONAL LOGOFF AT 16:41:56 ON 24 JAN 2002